DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-028226
Date Inspected: 22-Aug-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1930
Location: Job Site

CWI Name:	As noted below.			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Tower

Summary of Items Observed:

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Electroslag Excavation

This QA observed ABF personnel performing the excavation of rejectable indication previously discovered on ESW B, Face A, at Y= 7800mm.

Measurements for the excavation:
L= 220mm, W= 16mm, D= 8mm

Electroslag Weld Repair Welding

This QA observed, at random intervals, ABF/JV qualified welder Xiao Hua Luo #1291 continue performing Flux Core Arc Welding (FCAW) implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3000-3Repair. The joint being welded was tower shear plate designated as ESW weld, location "Q" from face B.
Weld "Q" - Y= 2140mm, L= 650mm, W= 75mm, D= 53mm

During welding, ABF Quality Control (QC) Andrew Keech was noted monitoring the welding parameters.

Ultrasonic Testing

This QA performed Ultrasonic Testing (UT) of Tower Electroslag Weld (ESW) designated as "ESW G" face A at locations (Y= 2800mm~3420mm).

These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.4.

This QA observed no rejectable indications at the time of testing.

This QA observed three (3) recordable indications at the time of testing.

This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

Recordable Indications were documented as:

Indication #1: Y= 2670mm, X= -22mm, L= 45mm
Sizing – A= 70db, B= 52db, C= 5db, D= 13db
SP= 93.62mm, DP= 31.71mm

Indication #2: Y= 3140mm, X= -2mm, L= 85mm
Sizing – A= 67db, B= 52db, C= 6db, D= 9db
SP= 103.8mm, DP= 5.161mm

Indication #3: Y= 3305mm, X= -16mm, L= 20mm
Sizing – A= 69db, B= 52db, C= 8db, D= 9db
SP= 121.5mm, DP= 41.18mm
Sound Path= 121.1mm, Depth= 42mm

This QA performed Ultrasonic Testing (UT) of Tower Electroslag Weld (ESW) designated as “ESW P” face B at locations (Y= 3300mm~5400mm).

These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.4.

This QA observed no rejectable or recordable indications at the time of testing.

This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

Magnetic Particle Testing

This QA Inspector performed Magnetic Particle Testing (MT) of completed weld repair on tower "ESW G”, face A. This QA observed no rejectable indications at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

Measurements for testing are:
Weld “G” – Y= 2800mm~3420mm.

This QA Inspector performed Magnetic Particle Testing (MT) of completed weld repair on tower "ESW P”, face B. This QA observed no rejectable indications at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

Measurements for testing are:
Weld “P” – Y= 3300mm~5400mm.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

ESW RWR Tracking

This QA was instructed by Task Leader Bill Levell to generate a spread sheet for the tracking of Request for Weld Repair (RWR) forms submitted by ABF for the repair of Electroslag Welds located at the base of the Tower. This assigned task requires review of all submitted RWR's as well as review of approved QA TL-6031 report forms applicable to this welding, testing, and repair. This QA used the balance of time not allocated for in-process inspection and testing to work on this task.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Conversations were relevant to work performed.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Clifford,William	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer